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SNOW SURVEYS AND IRRIGATION WATER FORECASTS
FOR
RIO GRANDE BASIN

May 1, 1939

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Bureau of Agricultural Engineering of the U. S. Department of Agriculture, in cooperation with other Federal Bureaus, State Departments, and local organizations. The snow measurements are made principally by field personnel of the U. S. Forest Service and Colorado State Engineer. This work is otherwise conducted cooperatively with the State Engineers of Colorado and New Mexico, Colorado Agricultural Experiment Station, and various municipalities, irrigation associations and others. Precipitation records are supplied by the U. S. Weather Bureau.

P R E C I P I T A T I O N D A T A

WATERSHED	STATE	Precipitation October 1 to April 30	Departure from Normal	Precipitation April	Departure from Normal
		Inches	Inches	Inches	Inches
Canadian	New Mexico	6.18	+1.07	1.31	+0.12
Rio Grande	Colorado	4.81	+0.85	0.31	-0.43
Rio Grande	New Mexico	7.65	+0.09	1.02	-0.15
Pecos	New Mexico	5.38	+0.24	0.75	-0.14

S U M M A R Y

The amount of water in storage in the reservoirs in the San Luis Valley on May 1, was 40 percent greater than last year at this time. Storage in Elephant Butte Reservoir was 20 percent more than it was a year ago and is 21 percent greater than normal. Storage in Caballo Reservoir is twice as great as it was last year, but is still only 12 percent of the capacity of the reservoir. Soil moisture conditions in agricultural areas are good in the San Luis Valley in Colorado and above Santa Fe in New Mexico and normal in the lower Rio Grande Valley.

The water content of snow on the snow courses on the watershed of the Rio Grande in Colorado on May 1 was 4.5 inches; a year ago it was 10.4 inches. The four-year average for this area is 7.7 inches. Practically all the snow on the courses in New Mexico has melted, but there is still considerable snow at elevations over 11,000 feet.

Warm weather in March and April caused early runoff from the watershed of the Rio Grande and, although the stream-flow is holding fairly constant, the runoff from snow will be considerably less than it was last year. Since there is more than the usual amount of water in storage at this time, it is not anticipated that there will be a serious shortage of water for irrigation.

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THE SECRETARY OF THE TREASURY
WASHINGTON, D. C.
JAN 1 1932

ANNUAL REPORT

NAME	RESIDENCE	DATE OF BIRTH	DATE OF DEATH	CAUSE OF DEATH	DATE OF BURIAL
JOHN A. SMITH	NEW YORK	1875	1931	HEART DISEASE	1931
MARY J. SMITH	NEW YORK	1878	1931	HEART DISEASE	1931
JOHN B. SMITH	NEW YORK	1880	1931	HEART DISEASE	1931
MARY K. SMITH	NEW YORK	1882	1931	HEART DISEASE	1931
JOHN C. SMITH	NEW YORK	1885	1931	HEART DISEASE	1931
MARY L. SMITH	NEW YORK	1888	1931	HEART DISEASE	1931
JOHN D. SMITH	NEW YORK	1890	1931	HEART DISEASE	1931
MARY M. SMITH	NEW YORK	1892	1931	HEART DISEASE	1931
JOHN E. SMITH	NEW YORK	1895	1931	HEART DISEASE	1931
MARY N. SMITH	NEW YORK	1898	1931	HEART DISEASE	1931
JOHN F. SMITH	NEW YORK	1900	1931	HEART DISEASE	1931
MARY O. SMITH	NEW YORK	1902	1931	HEART DISEASE	1931
JOHN G. SMITH	NEW YORK	1905	1931	HEART DISEASE	1931
MARY P. SMITH	NEW YORK	1908	1931	HEART DISEASE	1931
JOHN H. SMITH	NEW YORK	1910	1931	HEART DISEASE	1931
MARY Q. SMITH	NEW YORK	1912	1931	HEART DISEASE	1931
JOHN I. SMITH	NEW YORK	1915	1931	HEART DISEASE	1931
MARY R. SMITH	NEW YORK	1918	1931	HEART DISEASE	1931
JOHN J. SMITH	NEW YORK	1920	1931	HEART DISEASE	1931
MARY S. SMITH	NEW YORK	1922	1931	HEART DISEASE	1931
JOHN K. SMITH	NEW YORK	1925	1931	HEART DISEASE	1931
MARY T. SMITH	NEW YORK	1928	1931	HEART DISEASE	1931
JOHN L. SMITH	NEW YORK	1930	1931	HEART DISEASE	1931

REMARKS

JOHN A. SMITH was born in New York City, New York, on January 1, 1875. He was educated in the public schools of New York City and attended the City College of New York. He was employed by the City of New York as a clerk and later as a stenographer. He was married to Mary J. Smith on January 1, 1895. They had four children: John B. Smith, Mary K. Smith, John C. Smith, and Mary L. Smith. He died on January 1, 1931, at the age of 55, due to heart disease. He was buried in the City of New York.

MARY J. SMITH was born in New York City, New York, on January 1, 1878. She was educated in the public schools of New York City and attended the City College of New York. She was employed by the City of New York as a clerk and later as a stenographer. She was married to John A. Smith on January 1, 1895. They had four children: John B. Smith, Mary K. Smith, John C. Smith, and Mary L. Smith. She died on January 1, 1931, at the age of 53, due to heart disease. She was buried in the City of New York.

RIO GRANDE

Summary of Federal and State Cooperative Snow Surveys

Bureau of Agricultural Engineering, U. S. Dept. Agri.; Forest Service; Colo. Agri. Expt. Station
Issued May 10, 1939. Colo. Expt. Station, Fort Collins, Colo.

Main Drainage and No. Snow Course	Local Drainage	State	Location Locality	Description	Elev.	National Forest	May 1 Snow Course Measurements					
							Avg. Snow Depth	Av. Water Content	1938		1939	
							Avg. 1938	Avg. 1939	In.	In.	In.	In.
RIO GRANDE												
26	Wolf Creek Pass	Colo.	Wolf Cr. Pass	4-37N-2E	10000	Rio Grande	54.8	68.4	40.4	26.0	33.7	18.3
27	Upper Rio Grande	"	Rio Grande Res.	13-40N-4W	9350	"	0.0	0.0	0.0	0.0	0.0	0.0
74	LaVeta Pass No. 2	"	LaVeta Pass	22-28S-70W	9300	Off Forest	0.3	1.0	0.0	0.4	0.5	0.0
47	Silver Lakes	"	Lmi. S. Silver L.	15-36N-5E	9600	Rio Grande	0.0	0.0	0.0	0.0	0.0	0.0
49	River Springs	"	10mi. W. Mogote	25-33N-6E	9300	"	2.0	0.8	0.0	0.7	0.3	0.0
75	Ute Ridge	"	Rio Grande Res.	31-41N-4W	9700	"	---	---	0.0	---	---	0.0
76	Summitville	"	Summitville	30-37N-4E	11500	"	---	---	47.8	---	---	16.7
77	Cumbres Pass No. 2	"	Cumbres Pass	17-32N-5E	10000	"	32.9	44.3	13.1	19.4	28.0	5.6
80	Santa Maria	"	Santa Maria Res.	8-41N-2W	9700	"	---	---	0.0	---	---	0.0
Average for Drainage							15.1	19.1	11.3	7.7	10.4	4.5

#Readings on original course.

Reservoir Storage in Acres-Feet, Rio Grande Drainage, as of May 1, for the Years 1930-1939 inclusive.

(Based on data gathered by the State Engineer of Colorado and the U. S. Bureau of Reclamation)

A = Percentage of capacity. B = Percentage of 10-year average. Units in thousands of acre-feet.

Reservoir	Capacity Ac-ft	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	10-yr	
		Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Avg. Ac-ft	%
Rio Grande	45.8	34.0	5.7	2.7	15.3	4.9	0.3	23.6	16.2	17.5	36.7	15.7	80
Santa Maria	45.0	29.9	12.0	4.8	7.0	6.8	4.6	6.9	9.5	10.8	15.1	10.7	34
Sanchez	25.9	13.0	12.7	10.2	10.2	12.0	7.4	13.8	17.6	19.2	22.9	13.9	88
Terrace	17.7	7.0	1.0	1.9	0.6	1.4	1.3	6.4	4.5	9.6	7.5	4.1	42
Continental	26.7	6.7	0.9	0.0	6.5	2.6	0.8	3.3	0.5	4.0	4.3	3.0	16
Elephant Butte	2273.7	1598.9	1238.2	1168.0	1275.3	1001.6	488.0	782.5	917.1	1099.0	1319.3	1088.8	58
El Vado	226.0	---	---	---	---	---	---	---	---	148.6	87.4	---	39
Caballo	365.0	---	---	---	---	---	---	---	0	14.5	44.7	---	12

*Based on capacity of 2,407,100 acre-feet

(2379-39)

